

Districts are finding that it is possible to reduce energy consumption by more than 30 percent. The savings add up to millions of dollars a year for the state's schools.

egardless of size or community served, school districts across California and the nation face one common challenge – a reduction in funding. Becoming more efficient in managing precious taxpayer dollars has become the highest priority for districts in order to minimize or avoid staff reductions or the elimination of student programs.

Next to personnel, a school district's largest expense is utilities. In fact, according to data from United States Environmental Protection Agency and ENERGY STAR, the annual energy bill to operate our nation's schools is \$6 billion – more than is spent on computers and textbooks combined. And this is an expense that continues to escalate.

But dozens of school districts throughout California are taking a proactive approach in efforts to reduce energy spending by implementing sustainable, people-oriented energy conservation programs. Through these comprehensive programs, the districts on average are reducing energy consumption by 20 to 30 percent, which allows them to retain

funds in their budget for use elsewhere. Plus, these programs are making a positive impact on the environment by showing quantifiable and substantial reductions in CO₂, or carbon dioxide emissions.

"The decision to implement a peopleoriented energy program was simple for our district," said Manteca USD Superintendent Jason Messer. "Saving money on utilities is a high priority. The Energy Education program did not require us to increase our utility budget one penny or purchase any new equipment, and the savings are guaranteed. But most importantly, it gave us the opportunity to quickly realize benefits from a longterm and extensive energy conservation program we could not have developed on our own." (Energy Education trains clients to implement behavioral and organizational changes to reduce energy consumption.)

Since July 2009 and through 2010, Manteca USD has reduced energy consumption

By Randy Hoff

by 30 percent, resulting in a net savings exceeding \$2 million. The impact on the environment is just as considerable, with a reduction of 3,669 total metric tons of carbon dioxide emissions, equivalent to 658 cars off the highway for a year or 93,835 tree seedlings planted and grown in a 10-year period.

The district's two Energy Education specialists manage the program daily, including auditing during nights, weekends and holidays. Kimberly Wright and Victoria Brunn, whose salaries are paid from the savings generated by the energy program, said the essence of the program, as well as effective energy conservation, is changing the behavior of district employees through the way they understand and use energy.

"At first the greatest misconception about the energy program was that it was simply turning off lights or computers at the end of the day," said Brunn. "I think that is because we are taught growing up to turn the lights off when we leave a room. While lighting is important, the program is very comprehensive and we are working each day to ensure that our equipment in each and every building is being operated as efficiently as possible and that all of our employees are aware of things we need to do differently."

Wright agreed that the energy program's success is due to every staff member in the district becoming educated in the value of the energy program and being aware of where energy can be saved.

"Today we are a district of energy conservers, not users," she said. "From the start, as we began to see thousands of energysaving opportunities across the district, everyone became very supportive and quickly saw the energy program as a way to save the district real money and take care of our environment."

Through the diligent analysis of energy use with independent, third-party software, the Manteca USD energy program also discovered monies the district was due in refunds. The district was able to recover more than \$48,000 in erroneously paid peak gas pricing and utility use taxes.

Most importantly, according to Superintendent Messer, the energy program will provide financial and environmental benefits well into the future. "Since we are changing our behavior toward energy, we are establishing a program now that will be saving taxpayer dollars and our natural resources for generations to come," he said. "We see this energy program helping our district become as energy efficient as possible, leading to the use of alternative methods of saving energy down the road."

In 2010, the district received the Leadership Award during the Green California

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Schools Summit. The award recognized Manteca USD for outstanding accomplishments in school sustainability.

District recognition by the EPA

Sacramento City USD's energy program has also been one of the most successful in the country according to the EPA, which awarded ENERGY STAR Building Labels to 70 of the district's 100 buildings in 2010, the most received by any school district in California during the year. Achieving ENERGY STAR Building Label recognition puts those buildings in the top 25 percent of the most energy efficient nationwide. Such buildings use an average of 35 percent less energy than typical buildings and release 35 percent less carbon dioxide into the atmosphere.

Throughout the state, more districts than ever before are being recognized for their energy efficiency and the impact their energy programs are having on the environment. In 2010, the EPA recognized more than 200 California school district buildings with the ENERGY STAR Building Label, far and

above the most of any state in the country. Woodland Joint USD was awarded ENERGY STAR Building Labels for 13 of their buildings. Even more impressive is the fact the average age of buildings in the district is 44 years. The district has reduced energy consumption by 28 percent and saved nearly \$1 million since the start of its energy conservation program two years ago.

Doing things differently to save money

In San Jose, a city known for having an aggressive energy conservation effort, the Oak Grove School District recently received 16 ENERGY STAR Building Labels and has reduced energy consumption across the district by 20 percent. This translates into nearly \$600,000 being retained in the school district budget. Such success could not have been realized without every staff member understanding the need to change the way they use energy and following through with actions each and every day, explained Superintendent Tony Garcia.

"Everyone in our district is well aware of the economic challenges we face," he said. "All of us – certificated and classified personnel, as well as our students – realized very quickly that modifying how we use our utilities could dramatically save us money. The game has changed today so we have to do things differently to save money and the first place to start was with energy conservation."

Garcia is just as pleased with the environmental benefits. From August 2009 through August 2010, the Oak Grove SD reduced carbon dioxide emissions by 1,033 metric tons, which is equal to 185 cars off the roads in a year or 26,415 tree seedlings planted and grown in a 10-year period.

In Southern California, Carlsbad USD has always been energy conscious, according to Energy Conservation Manager Darin Vey. But in the last two years its people-oriented program has allowed the district to take energy savings to a new level. The program has created not only strong awareness among staff members of retaining funds that normally would have paid utility bills, but showed them how they can save money in their own homes.

"Every day I see the benefits of our pro-

gram in the support from staff members and their understanding of how important it is to not waste our resources," Vey said. "Plus, I hear of how they are making similar behavior changes at home, with their families, that we have done throughout our schools. They are realizing the financial impact our program is having in our district because they are saving money at home!"

Awards confirm staff members' dedication

Carlsbad USD has also been honored by the EPA, with nine of its buildings receiving ENERGY STAR Labels in 2010. Vey knows the awards have instilled a sense of pride throughout the district, but he also sees gratification in each of the schools as the awards validate the staff's hard work in saving energy.

"When we presented the plaques to the schools, it was confirmation of each staff member's hard work in taking part in the program," Vey said. "The principals took the opportunity to thank the staff and custodians for their dedication to the program.

I think it helped each person realize just how big a part of the energy program they are and how valuable their support is in its success."

To strengthen their energy program further, Vey explained they are in the planning stages of introducing a student energy team in one of the elementary schools to help monitor energy use and look for waste. It's the intent of the district's leadership to take energy saving awareness beyond just the staff.

"The benefit of the people-oriented energy program is that it truly can change everyone's behavior when it comes to saving energy. We are seeing that on a daily basis throughout the school district. That's good for Carlsbad USD now and for future generations in our district and community," said Superintendent John Roach.

For all these districts, being able to sustain the people-oriented energy program long-term is critical. And no district exemplifies the value of an ongoing energy culture more than Long Beach USD. The district started its people-oriented energy program in 2002 and has reduced energy consump-

tion by nearly 27 percent overall. The result has been \$20 million in utility savings.

Bob Sauchelli of the EPA ENERGY STAR Program said the number of ENERGY STAR Labels presented in California over the last year is indicative of the growing importance of developing sustainable energy conservation programs in school districts in the state and across the country.

"The EPA and ENERGY STAR applaud all school districts in California who are working to be more energy efficient by teaching staff to not waste our resources," said Sauchelli. "By showing commitment to energy efficiency, they are also teaching students and communities the importance of preserving our natural resources, now and in the years to come."

Randy Hoff is chief executive officer of Energy Education. For more information about the company, contact Jan Noel-Smith, inoelsmith@energyed.com.

